RE-INVENTING CANCER CARE

JP MORGAN HEALTHCARE CONFERENCE - 2017

DOW R. WILSON
President and Chief Executive Officer
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Medical Advice Disclaimer
Varian as a medical device manufacturer cannot and does not recommend specific treatment approaches. Individual treatment results may vary.
DRIVING FOR PROFITABLE GROWTH

• Addressing demographic needs
• Innovating for better quality, accessibility and cost of care
• Expanding installed base
• Building software & services
• Opening new markets
• Adding new treatment solutions
THE NEW VARIAN

Cancer Management Solutions

$2.6B*  
FY16 REVENUES

$1.25B*  
SOFTWARE & SERVICE BUSINESS

6,400+  
EMPLOYEES

7,500  
MEDICAL LINEAR ACCELERATORS

4,000+  
SOFTWARE INSTALLS

50+  
PROTON THERAPY ROOMS

*Excluding Imaging Components
VARIAN: WHERE WE ARE TODAY

Leader
In linear accelerator installations

2.8M patients treated annually

100k+ software users; largest oncology installed base

A majority of the leading global cancer centers use Varian hardware, software, and/or services

Spending ~8% of annual revenues on R&Dt
MOST COMPREHENSIVE ONCOLOGY PORTFOLIO

ARIA®
Oncology Information System

Channel Partners
OncoLog, Aria Business Office

Connectivity
Epic, Cerner, ARIAConnect

Velocity™
Oncology Image Informatics

Eclipse™
Treatment Planning System

InSightive™
Oncology Analytics

Cancer Treatment

OIS

Radiation Therapy

Proton Therapy

Radiotherapy

Brachy Therapy

Analytics

Partnering

Image Management

TrueBeam®/VitalBeam™
Trilogy®/Clinac®/UNIQUE™
Treatment Procedures with Ease, Speed and Accuracy

ProBeam®
Proton Therapy Systems

Edge™ System
Dedicated Full-Body Radiosurgery Platform

Calypto®
Real Time Tracking Technology

Varian Brachytherapy
Product Suite for Planning and Delivery

InSightive™
Oncology Analytics

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 DEMOGRAPHICS: WORLDWIDE CANCER BURDEN

24.6
new cancer cases per year by 2030

$2T
global economic burden in 2010

50-60%
of patients with cancer need RT

56%
of cancers diagnosed in high income countries

10%
of patients have access to RT in low income countries

>20,000*
Linacs needed by 2035, with greatest need in low and mid-income countries

*8,700 new machines plus 13,100 replacements = 21,800 additional machines needed
Expanding global access to radiotherapy. Lancet Oncol. Vol 16, Sept.2015
# Global Radiotherapy Gaps

## What is Needed

<table>
<thead>
<tr>
<th>WHAT IS NEEDED</th>
<th>2015</th>
<th>GAP</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiation Oncology Centers</td>
<td>7,700</td>
<td>3,200</td>
<td>10,900</td>
</tr>
<tr>
<td>Linear Accelerators</td>
<td>13,100</td>
<td>21,800*</td>
<td>21,800</td>
</tr>
<tr>
<td>Radiation Oncologists</td>
<td>23,200</td>
<td>22,300</td>
<td>45,500</td>
</tr>
<tr>
<td>Medical Physicists</td>
<td>1,000</td>
<td>29,300</td>
<td>39,300</td>
</tr>
<tr>
<td>Radiation Technologists</td>
<td>33,300</td>
<td>96,900</td>
<td>130,200</td>
</tr>
</tbody>
</table>

*8,700 new machines plus 13,100 replacements = 21,800 additional machines needed. Expanding global access to radiotherapy. Lancet Oncol. Vol 16, Sept 2015.

## Keys to Closing Gap

- Automation
- Simplification
- Productivity

**Equip, Empower Each Clinician to Treat More Patients**

8 | FOR INVESTOR USE ONLY
RE-INVENTING CANCER CARE

Developing the opportunity to enhance cancer care globally

- COST-EFFECTIVE HIGH-QUALITY
- SIMPLIFIED, AUTOMATED, FAST
- GLOBALLY ACCESSIBLE
FOCUS OF VARIAN INNOVATIONS IN CANCER CARE

- KNOWLEDGE-GUIDED ONCOLOGY
  - RapidPlan

- INTELLIGENT TREATMENT DELIVERY
  - HyperArc HDRT

- ADVANCED DATA ANALYTICS
  - 360 ONCOLOGY
RapidPlan™ A GAME CHANGER

GAINING MOMENTUM

600 licenses ordered to date; broad acceptance

10% market penetration; moving into mainstream
HYPERARC™

ENABLING HIGH-DEFINITION RADIOTHERAPY

Aiming to change cancer care by simplifying, automating and compacting dose distribution

510(k) Pending

*HyperArc High Definition Radiotherapy is 510(k) pending. Not available for sale.
ESTABLISHING A NEW BENCHMARK
FOR COMPACT DOSE, TREATMENT SPEED

Coplanar RapidArc SRS

Non-coplanar HyperArc RT

Eclipse planning for HyperArc HD Radiotherapy is works-in-progress. Not available for sale.
HIGH-DEFINITION RADIOTHERAPY

New product options:
• HDRT Treatment Mode*
• HDRT Planning Module**
• HDRT Virtual Dry Run**
• HDRT Patient Immobilization*

Product pre-requisites:
• TrueBeam or EDGE
• PerfectPitch™ Couch
• Eclipse IMRT

Aiming for >$500M in orders in 5 years

*HyperArc High Definition Radiotherapy is 510(k) pending. Not available for sale.
**Eclipse planning for HyperArc HD Radiotherapy is works-in-progress. Not available for sale.
RADIOSURGERY GROWING

108% INCREASE in SRS utilization for brain cancer treatment

SRS/SBRT LEADS GROWTH

255% INCREASE in extracranial treatment over the next decade*

*Source: SG2 Consulting, Skokie, Illinois, US
SRS CHANGING EQUIPMENT NEEDS IN US

- Move to SBRT/SRS driving replacement
  - Every center will need at least one SBRT unit

  **RADIATION THERAPY - US Transition of practice to increased SRS/SBRT/Hypo Fx**
  (Assumes 4000 machines in US market)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>US Cancer Patients total (new Dx)</td>
<td>1.6M</td>
<td>2.5M</td>
</tr>
<tr>
<td>RT Suitable (60% of patients)</td>
<td>1M</td>
<td>1.5M</td>
</tr>
<tr>
<td>SRS/SBRT (~3 Fx)</td>
<td>21%</td>
<td>39%</td>
</tr>
<tr>
<td>Hypofractionation (15 Fx)</td>
<td>20%</td>
<td>33%</td>
</tr>
<tr>
<td>Conventional (30 Fx)</td>
<td>59%</td>
<td>28%</td>
</tr>
<tr>
<td><strong>Total Fractions</strong></td>
<td>19.6M</td>
<td>20.1M</td>
</tr>
<tr>
<td><strong>Total Time</strong></td>
<td>303.4M</td>
<td>330.7M</td>
</tr>
</tbody>
</table>

- ~3,500-4,500 new SBRT units needed over next 12-15 years in US
VARIAN LEADING IN ONCOLOGY SOFTWARE

>4,000+ installations globally

~$500M annual revenues

Treatment planning

Information management

Data analytics

Coordinated cancer care

#1 in KLAS customer ratings
360 ONCOLOGY™ CARE COORDINATION SOFTWARE

A FIRST FOR MULTI-DISCIPLINARY TUMOR BOARDS, PATIENTS
360 CARE COORDINATION GROWTH OPPORTUNITY

Key Customers

- Comprehensive Cancer Clinics
- Hospital and Clinical Networks
- Health Ministries

~$100M market opportunity by 2020
ENHANCING CYBER-SECURITY

Security Services
- Keeping software systems current
  - Contracts, paid upgrades
- Keeping machine software current
  - Contracts, system upgrades
- Shifting to Varian Managed Services
  - FullScale cloud migrations
- Migration to all-Varian systems
  - Fully-integrated security models

~$80M market opportunity by 2020
ONCOLOGY SERVICE GROWTH

Drivers

- Expanding installed base
- TrueBeam conversions
- Software support agreements
- Managed, professional services
VARIAN INSTALLED BASE TARGET

10,000 machines by 2022

BUILDING BASE FOR
• Service
• Software
• Accessories
• Upgrades
NEEDS GROWING FASTEST OUTSIDE USA, EU

PEOPLE 60 YEARS AND OLDER (IN MILLIONS)

- BRIC: +97%
- OTHER: +81%
- NA: +58%
- EU DEVELOPED: +37%

Expanding global access to radiotherapy. Lancet Oncol. Vol 16, Sept. 2015
BRICA REVENUE GROWTH

7% combined 5yr CAGR

12% of total sales

$300+ combined revenue

$ in millions
LMIC OPPORTUNITY – CALL FOR CANCER PLANS

TARGET BY 2020: 80% of countries should have cancer plans that include radiotherapy.

POPULATION BASED CANCER CONTROL PLANS

Expanding global access to radiotherapy. Lancet Oncol. Vol 16, Sept.2015
LMIC OPPORTUNITY – CALL FOR INCREASE IN RT

TARGET: 25% increase in RT capacity from 2015 to 2025

EXPANSION OF ACCESS TO RADIOTHERAPY

Expanding global access to radiotherapy. Lancet Oncol. Vol 16, Sept.2015
LMIC OPPORTUNITY – CALL FOR MORE CLINICIANS

Target by 2025:

- **23,000** radiation oncologists
- **33,300** RTTs
- **10,000** medical physicists

HUMAN RESOURCES FOR RADIOTHERAPY

Expanding global access to radiotherapy. Lancet Oncol. Vol 16, Sept. 2015
SUSTAINABLE FINANCING TO EXPAND ACCESS TO RADIOTHERAPY

TARGET BY 2025: $46B of investment to establish radiotherapy infrastructure and training in LMIC

Expanding global access to radiotherapy. Lancet Oncol. Vol 16, Sept. 2015
ALIGN RADIOTHERAPY ACCESS WITH UNIVERSAL HEALTH COVERAGE

TARGET BY 2020: 80% of LMIC to include RT services as part of universal health coverage

Expanding global access to radiotherapy. Lancet Oncol. Vol 16, Sept.2015
VARIAN ACCESS TO CARE INITIATIVE

EXPANDING GLOBAL TEAM

PARTNERING TO BUILD ACCESS TO CANCER CARE

- Governments
- Financiers
- Clinicians
- Patient advocacy groups

PROMOTING AWARENESS

- Lancet Oncology Commission
- PR/Government Affairs
## PROTON THERAPY – BUILDING CRITICAL MASS

<table>
<thead>
<tr>
<th>Location</th>
<th>Treatments Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 UK Proton Therapy Centers</td>
<td>UCLH London, Christie Manchester – 6 gantries</td>
</tr>
<tr>
<td>UNIVERSITY OF MARYLAND</td>
<td>2 treatment rooms plus 3 completed rooms</td>
</tr>
<tr>
<td>CINCINNATI CHILDREN’S HOSPITAL</td>
<td>2 treatment rooms plus 1 completed room</td>
</tr>
<tr>
<td>HOLLAND PTC</td>
<td>3 treatment rooms</td>
</tr>
<tr>
<td>SINGAPORE INSTITUTE OF ADV MED</td>
<td>1 Compact treatment room</td>
</tr>
<tr>
<td>AARHUS PTC - DENMARK</td>
<td>2 treatment rooms</td>
</tr>
<tr>
<td>NEW YORK PTC</td>
<td>4 treatment rooms</td>
</tr>
<tr>
<td>PAUL SCHERRER INSTITUTE (PSI)</td>
<td>1 treatment room</td>
</tr>
<tr>
<td>PTC ST PETERSBURG, RUSSIA</td>
<td>2 treatment rooms</td>
</tr>
<tr>
<td>KFMC-KING FAHD MEDICAL CENTER</td>
<td>5 treatment rooms</td>
</tr>
<tr>
<td>NATIONAL TAIWAN UNIVERSITY</td>
<td>3 TREATMENT ROOMS</td>
</tr>
<tr>
<td>CHINA PT CENTER (HEIFI)</td>
<td>4 treatment rooms plus 1 research room</td>
</tr>
</tbody>
</table>

55 rooms (36 in backlog, 13 completed, and 6 under contract but not booked)
VARIAN ORGANIC LONG-TERM GROWTH POTENTIAL

4-6% SALES GROWTH

22% OPERATING MARGIN
INVESTMENT SUMMARY: NYSE: VAR

- Sharpened focus on cancer care
- Rising global cancer burden
- Market leader, largest installed base
- Winning product portfolio
- Robust innovation pipeline
- Service momentum
- Strong financial performance
RE-INVENTING CANCER CARE

THANK YOU